

## **LISTING OF CLAIMS**

This listing of claims replaces all prior versions and listings of claims in the application:

Please amend the claims as follows:

1. (currently amended):       An apparatus for determining the critical length of a conductor comprising:  
at least one device under test (DUT) including a decoder and selection circuitry for each said DUT;  
said at least one DUT including at least one test strip of a metal under test, said at least one test strip formed from a series of segments of the metal under test, wherein said metal under test of said series of segments are coupled together with segments of a connecting metal.

2. (original):       The apparatus of claim 1, wherein said apparatus includes a plurality of said DUTs, and wherein said segments of each of said plurality of DUTs has a unique length.

3. (currently amended):       The apparatus of claim 1, wherein said [[system]] apparatus is configured to detect electromigration in said DUT using Blech's law.

4. (canceled).

5. (previously presented):       The apparatus of claim 2, wherein said DUT is embodied within a integrated circuit.

6. (original):       The apparatus of claim 5, wherein said integrated circuit containing said DUT is mounted on a hot chuck.

7. (original):       The apparatus of claim 3, wherein said plurality of DUT include metal strips under test ranging in length from approximately 10 $\mu$ m to 320 $\mu$ m.

8. (canceled).

9. (currently amended):                    The apparatus of claim [[8]] 1, wherein said connecting metal segments are approximately three times wider than the corresponding metal strip under test.

10. (original):                    The apparatus of claim 9, wherein said metal strips under test and said connecting metal are coupled with vias.

11. (original):                    The apparatus of claim 10, wherein said vias are formed from an electromigration-resistant metal.

12. (original):                    The apparatus of claim 11, wherein said vias are formed from tungsten.

13. (original):                    The apparatus of claim 3, wherein said system is further configured to detect a rising voltage drop across said metal strips under test.

14. (previously presented):    A method for determining the critical length of a conductor comprising:

    providing at least one DUT, said at least one DUT including at least one test strip of a metal under test and a decoder and selection circuitry, said at least one test strip formed from a series of segments of the metal under test;  
    providing a test signal to said at least one DUT;  
    sensing an output signal from said at least one DUT; and  
    determining the critical length of a conductor from said output signal.

15. (original):                    The method of claim 14, wherein said act of determining the critical length of a conductor is performed using Blech's law.

16. (previously presented): An apparatus for determining the critical length of a conductor comprising:

testing means for providing a test signal to at least one DUT, said at least one DUT including at least one test strip of a metal under test and a decoder and selection circuitry, said at least one test strip formed from a series of segments of the metal under test;  
means for providing a test signal to said testing means;  
means for sensing an output signal from said testing means; and  
means for determining the critical length of a conductor from said output signal.

17. (original): The apparatus of claim 16, wherein said means for determining the critical length of a conductor is configured to use Blech's law.

18. (original): The apparatus of claim 16, wherein said apparatus includes a plurality of said DUTs, and wherein said segments of each of said plurality of DUTs has a unique length.

19. (currently amended): The apparatus of claim 16, wherein said [[system]] apparatus is configured to detect electromigration in said DUT using Blech's law.

20. (canceled).

21. (previously presented): The apparatus of claim 19, wherein said testing means is embodied within a integrated circuit.

22. (original): The apparatus of claim 21, wherein said integrated circuit containing said DUT is mounted on a hot chuck.

23. (original): The apparatus of claim 18, wherein said plurality of DUTs include metal strips under test ranging in length from approximately 10 $\mu$ m to 320 $\mu$ m.

24. (original): The apparatus of claim 23, wherein said metal strips of said segments are coupled together with segments of a connecting metal.

25. (original): The apparatus of claim 24, wherein said connecting metal segments are approximately three times wider than the corresponding metal strip under test.

26. (original): The apparatus of claim 25, wherein said metal strips under test and said connecting metal are coupled with vias.

27. (original): The apparatus of claim 26, wherein said vias are formed from an electromigration-resistant metal.

28. (original): The apparatus of claim 27, wherein said vias are formed from tungsten.

29. (original): The apparatus of claim 19, wherein said apparatus is further configured to detect a rising voltage drop across said metal strips under test.